

AMENDMENTS TO THE CLAIMS

Please cancel claim 1.

2. (currently amended) ~~The method of claim 1 wherein testing the multi-device enclosure further comprises:~~ A method for testing a multi-device enclosure that contains multiple devices and at least one processor, the method comprising:

controlling a number of bypass circuits to bypass a number of external communications medium connectors to isolate the multi-device enclosure from an external communications medium;

internally testing the multi-device enclosure by running a self-test routine on an internal processor by

_____controlling a number of bypass circuits to isolate the devices from an internal communications medium;

_____testing the internal communications medium;

_____when the internal communications medium passes the testing,

_____for each device,

_____controlling a bypass circuit to connect the device to the internal communications medium,

_____testing the device, and

_____when the device fails testing,

_____controlling a bypass circuit to disconnect the device from the internal communications medium, and

_____returning an indication that the testing of the multi-device enclosure has succeeded; ~~and~~

_____when the internal communications medium fails the testing,

_____returning an indication that the testing of the multi-device enclosure has failed; ~~and~~

when the multi-device enclosure passes the testing,

controlling a number of bypass circuits to connect the number of external communications medium connectors to the external communications medium.

3. (original) The method of claim 2 wherein the external communications medium and the internal communications medium are both portions of a fibre channel arbitrated loop.

4. (original) The method of claim 3 wherein controlling a number of bypass circuits to bypass a number of external communications medium connectors to isolate the multi-device enclosure from an external communications medium further includes:

controlling a bypass circuit to bypass a primary external communications medium connector to isolate the multi-device enclosure from the upstream portion of the fibre channel arbitrated loop; and

controlling a bypass circuit to bypass an expansion external communications medium connector to isolate the multi-device enclosure from the downstream portion of the fibre channel arbitrated loop.

5. (original) The method of claim 3 wherein the multi-device enclosure may be connected to two fibre channel arbitrated loops and wherein controlling a number of bypass circuits to bypass a number of external communications medium connectors to isolate the multi-device enclosure from an external communications medium further includes:

controlling two bypass circuits to bypass two primary external communications medium connectors to isolate the multi-device enclosure from the upstream portions of two fibre channel arbitrated loops; and

controlling two bypass circuits to bypass two expansion external communications medium connectors to isolate the multi-device enclosure from the downstream portions of two fibre channel arbitrated loops.

6. (original) The method of claim 3 wherein testing the internal communications medium includes sending a loop initialization primitive around the internal portion of the fibre channel arbitrated loop.

7. (original) The method of claim 3 wherein testing a device includes:

sending a loop initialization primitive around the internal portion of the fibre channel arbitrated loop.

8. (original) The method of claim 7 wherein testing a device further includes:

issuing commands to the device to cause the device to undergo a self-test and to solicit information from the device about the device.

9. (original) The method of claim 8 wherein the commands issued to the device are small computer systems interconnect enclosure services commands.

10. (original) A method for testing a multi-device enclosure that contains multiple devices, the method comprising:

controlling a number of bypass circuits to isolate the devices from an internal communications medium;

when the internal communications medium passes the testing,

for each device,

controlling a bypass circuit to connect the device to the internal communications medium,

testing the device, and

when the device fails testing,

controlling a bypass circuit to disconnect the device from the internal communications medium, and

returning an indication that the testing of the multi-device enclosure has succeeded; and

when the internal communications medium fails the testing,

returning an indication that the testing of the multi-device enclosure has failed.

11. (original) The method of claim 10 further including:

when a device malfunctions during operation of the multi-device enclosure,

controlling a bypass circuit to disconnect the device from the internal communications medium.

Please cancel claim 12.

13. (currently amended) ~~The self-testing multi-device enclosure of claim 12 wherein the internal communications medium and the external communications medium are portions of a fibre-channel-arbitrated loop.~~ A self-testing multi-device enclosure comprising:

an internal fibre-channel-arbitrated-loop communications medium;

a number of devices interconnected by the fibre-channel-arbitrated-loop internal communications medium;

a number of connectors that connect the multi-device enclosure to an external fibre-channel-arbitrated-loop communications medium;

bypass circuits that can be controlled to isolate devices from, and connect devices to, the internal fibre-channel-arbitrated-loop communications medium;

bypass circuits that can be controlled to isolate connectors from, and connect connectors to, the external fibre-channel-arbitrated-loop communications medium;

a processor; and

a self-test routine that runs on the processor to test the internal fibre-channel-arbitrated-loop communications medium and the number of devices and to control bypass circuits to isolate the multi-device enclosure during self-testing from the external fibre-channel-arbitrated-loop communications medium and to isolate the devices from the internal fibre-channel-arbitrated-loop communications medium.

14. (original) The self-testing multi-device enclosure of claim 13 wherein the number of devices include devices that exchange data and control information with other devices connected to the fibre channel arbitrated loop.

15. (original) The self-testing multi-device enclosure of claim 14 wherein the self-test routine

controls a number of bypass circuits to bypass a number of connectors to isolate the multi-device enclosure from the external communications medium;

tests the multi-device enclosure; and

when the multi-device enclosure passes the testing,

controls a number of bypass circuits to connect the number of connectors to the external communications medium.

16. (original) The self-testing multi-device enclosure of claim 15 wherein, after isolating the multi-device enclosure from the external communications medium, the self-test routine tests the multi-device enclosure by:

controlling a number of bypass circuits to isolate the devices from the internal communications medium;

testing the internal communications medium;

when the internal communications medium passes the testing,

for each device,

controlling a bypass circuit to connect the device to the internal communications medium,

testing the device, and

when the device fails testing,

controlling a bypass circuit to disconnect the device from the internal communications medium, and

returning an indication that the testing of the multi-device enclosure has succeeded; and

when the internal communications medium fails the testing,

returning an indication that the testing of the multi-device enclosure has failed.

17. (original) The self-testing multi-device enclosure of claim 16 wherein controlling a number of bypass circuits to bypass a number of external communications medium connectors to isolate the multi-device enclosure from an external communications medium further includes:

controlling a bypass circuit to bypass a primary external communications medium connector to isolate the multi-device enclosure from the upstream portion of the fibre channel arbitrated loop; and

controlling a bypass circuit to bypass an expansion external communications medium connector to isolate the multi-device enclosure from the downstream portion of the fibre channel arbitrated loop.

18. (original) The self-testing multi-device enclosure of claim 17 wherein testing the internal communications medium includes sending a loop initialization primitive around the internal portion of the fibre channel arbitrated loop.

19. (original) The self-testing multi-device enclosure of claim 17 wherein testing a device includes:

 sending a loop initialization primitive around the internal portion of the fibre channel arbitrated loop.

20. (original) The self-testing multi-device enclosure of claim 19 wherein testing a device further includes:

 issuing commands to the device to cause the device to undergo a self-test and to solicit information from the device about the device.